

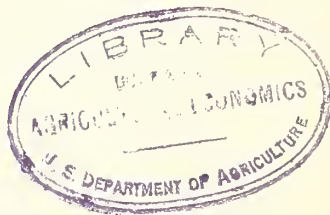
Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

UNITED STATES DEPARTMENT OF AGRICULTURE
Bureau of Agricultural Economics

6752

HOGS IN BELGIAN AGRICULTURE



By H. E. Reed *JK*
Principal Marketing Specialist

Washington, D. C.
April 1937

CONTENTS

	Page
Introduction	1
Hogs in the Agricultural Economy	2
Types, Breeds, and Distribution	3
Numbers and Trends	3
Methods of Production	4
Management and Feeding Practices	4
Marketing	5
Slaughter	7
Processing	8
Pork Requirements	8
Consumption	8
Imports	9
Fat Deficiency	10
Conclusions and Outlook	11

HOGS IN BELGIAN AGRICULTURE

By H. E. Reed
Principal Marketing Specialist

- - - - -

Belgium, with an area of only 11,752 square miles and a population of 8,000,000 people, is one of the smallest countries, and at the same time the most densely populated country in Europe. Favorably located to import raw materials, to supply other countries with finished goods, and to engage in transit trade, Belgium has developed as an industrial and exporting country.

The majority of the people are employed in industry and other nonagricultural pursuits. Consequently, exports are of the utmost importance. While exports have shown a great decline during depression years, they still approximate two-fifths of the country's industrial output. Belgian prosperity, by reason of the dependence on exports, is predicated on low living costs, low wages, and low production costs, which are calculated to give the country a competitive advantage in world markets. Social legislation adopted since the war has brought considerable improvement in the living conditions of the lower classes, but the low-cost demands of industry have prevented developments in agriculture comparable with those in most other countries in Western Europe.

With industry and commerce occupying the important positions in Belgian economy, agriculture has been left to develop along lines of least resistance. Agriculture has had the advantage of a growing domestic market, but the low standard of living of the majority of the people has directed production toward quantity and not quality. Struggling under the double handicap of high land values and low prices for agricultural commodities, Belgian agriculture has become the most intensive in Europe, and domestic production supplies the greater part of the country's food requirements.

Under conditions as outlined, Belgium has until recent years followed a free-trade policy. When the wave of protectionism swept Europe in the early 1930's and closed or curtailed export outlets for the agricultural products of surplus countries, Belgium adopted import regulations so that the country would not become the dumping ground for agricultural products denied admission elsewhere. These measures have taken the form of import quotas, license fees, and tariffs, but they are operated in such a way that prices for domestic agricultural products have been kept in line with existing wage levels.

A controversy between industry and agriculture has developed - the former demanding low food prices, the latter demanding higher prices. Since industry is much the stronger and more powerful of the two, agriculture has taken and will probably continue to take such concessions as industry is pleased to grant. On the whole, this appears to be in the best interests of the national economy.

Hogs in the Agricultural Economy

Unofficial estimates indicate that in 1935 about two-thirds of the agricultural income was derived from livestock and livestock products. Among these, hogs and pork ranked fourth in value, being exceeded by dairy products, beef, and poultry and poultry products. A farm management study involving 58 representative farms in the vicinity of Ghent showed that during the period 1932-1934 hogs were responsible for approximately 15 percent of the gross farm income and that hog products accounted for one-fifth of the value of all farm produce retained for use by the farmer's household.

Farms are small in this densely populated country. According to the 1930 census 4,936,000 acres were used for agriculture. The acreage was divided into 1,131,146 holdings, an average of 1.766 hectares (4.364 acres) per farm. Holdings of less than 1 hectare (2.471 acres) perhaps should not be regarded as farms. The majority of them, in reality, are gardens on which industrial workers grow vegetables and flowers during their spare time. Of the 1,131,146 farms, only 459,044, including 396,847 of less than 1 hectare, were owner operated; but it is estimated that about one-fourth of the Belgian population finds employment in agriculture and related vocations.

<u>Size of holding</u>	<u>Number of farms</u>
Under 1 hectare <u>a/</u>	838,833
1 to 5 hectares	194,914
5 to 10 "	56,311
10 to 20 "	27,882
20 to 30 "	7,010
30 to 50 "	3,656
50 to 100 "	2,026
over 100 "	464

a/ One hectare equals 2.471 acres.

The livestock population is found mostly on farms of more than 1 hectare in size. The larger farms, particularly those where pasture is available, tend more toward cattle production. But the smaller farms, those under 20 hectares (49 acres) are more important in the production of hogs. Production and fattening of hogs heretofore has taken place principally on the small and medium-sized farms. Farmers on very small holdings usually keep one sow, fatten one pig for their own consumption, and sell the remainder as feeders. Commercial feeders of such pigs have become important in recent years, and an increasing part of the market receipts of hogs comes from dairies and other establishments where no sows are kept but where feeder pigs are bought for utilizing waste and byproducts.

Hog production is not closely associated with any one phase of agriculture but has developed as an integral part of a very intensive agriculture. Hogs provide a means of utilizing many feeds which otherwise would be wasted. Distribution of hogs is rather general over the entire country. It is said that hogs are such an essential part of Belgian agriculture that the small and medium-sized farms could not be operated without them.

Types, Breeds, and Distribution

Native Belgian hogs are probably the fattest in type of any founded on the Celtic strain indigenous to northern Europe. Belgian foundation hog stock was the same as that in Germany, Denmark, the Netherlands, and other northern European countries. In Belgium, however, selection in pre-war days was along fat-hog lines and crosses were made with the Middle White, whereas in the other countries the meat type received more attention and crossing was made with Large Whites. As a result of such selection and crossing, the native Belgian hog was of a large, coarse, fat type, lacking in quality but unusually prolific and possessed of great hardiness. Such a hog met the demands of Belgian agriculture and supplied the fat pork preferred by rural and laboring classes.

Since the war the urban population has demanded more lean and less fat pork although the rural population continues to prefer fat meat. Large Whites and Veredelte Landschweine have been introduced for crossing, and the trend in type is definitely toward a meat hog. This trend, however, is said to have been retarded somewhat by a system of marketing charges, which makes the per-kilogram costs less on heavy hogs, and by the German import demand for speck. In 1935 Belgian breeders of purebred Large Whites numbered about 400, compared with about 250 in 1934. About 1,200 breeders were also grouped in an association interested in Veredelte Landschweine and improved native hogs. The Government has helped in the introduction of improved strains by aiding in the selection of the animals, giving small grants to owners of approved boars and giving financial assistance to a testing and experiment station.

In 1936 it was estimated that about 20 percent of Belgian hogs showed Yorkshire breeding, about 25 percent Veredelte Landschwein breeding and the remainder a predominance of the old Flemish and Walloon Landrace blood. It is estimated that more than 80 percent of the market receipts are still made up of fat hogs. Little uniformity of type is in evidence on Belgian markets.

Herdbook associations report that Large Whites are preferred in the more fertile sections and Veredelte Landschweine in those areas where soils are light. Hogs in the Flemish (northern) part of the country have always been somewhat leaner than those from the Walloon (southern) section, probably because of the feed and environment, more grain being used in the former and more roots in the latter. The introduction of meat-hog blood is reported to have been consequently greater in the Walloon section than in the Flemish section, but leading hog merchants maintain that the best meat-type hogs are still to be obtained in the Flemish section.

Numbers and Trends

Under the influence of an expanding agriculture and the greater demand for meat by an increasing population, hog numbers showed an upward trend from early in the eighteenth century until shortly before the outbreak of the World War. The war reduced numbers from a total of 1,412,300

in December 1913 to 770,200 by December 1919. A rapid replenishment of herds took place after 1919, and a strong upward trend in numbers continued until a post-war high of 1,352,500 was reached in December 1933.

A brief study of Belgian hog numbers indicates a tendency for production to move in a cycle somewhat similar to that experienced in the important hog-producing countries. There is evidence that the cycle is influenced to some extent by the hog-feed price ratio.

Although the basic features of a production cycle are visible for the post-war period, the upward trend in hog numbers, under the influence of the agricultural restoration, has been so strong that variations in numbers of hogs cannot be primarily accounted for by rises and falls in hog-feed price ratios. Furthermore, in a country like Belgium where hogs, particularly breeding hogs, are fed largely on waste feeds, the supply of those feeds rather than a hog-feed price ratio would appear to have the greatest influence on hog numbers. With present hog numbers and with the country already on an imported-feed basis, the increase in commercial feed-lot operations and the dependence of the latter on imported grain supplies will likely result in future hog-feed price ratios having greater influence on fluctuations in hog numbers than they have heretofore.

Methods of Production

Only the production of those agricultural products that are on an export basis has been systematized to any extent. Standardization of the product itself is, in most cases, accomplished through grading by middlemen. Those commodities that are on a domestic basis have come in for little consideration; no important studies relating to their production and distribution have been made, statistical data are lacking, and a knowledge of factors affecting them is by no means general. Hog production, being on a domestic basis, is as lacking in these respects as are other phases of agriculture, and there has been no incentive for quality production.

Management and Feeding Practices

The breeding unit is small; most of the sows are in the hands of farmers who have no facilities for keeping more than two. Most farrowings come in the late winter months of February and March, the remainder being spread throughout the year but showing some increase in October and November. A two-litter-a-year system, as followed in the more important hog-producing countries, has not been generally adopted in Belgium.

As in most northern European countries, pastures are scarce and, when available, are used for cattle. Hog production is, therefore, a dry-lot proposition. Farmers who produce more pigs than they can fatten themselves sell the surplus as feeders, and feeder-pig production and feeder-pig markets are becoming of more importance. In areas where pasture is an important factor in cattle production, cattle barns are sometimes used for hog-feeding operations during the season when cattle are on grass. Since 1931, there has been an increase in dairy cow numbers and milk production, and dairies have increased their hog-feeding operations in order

to utilize skin milk and other by-products. It is estimated by market officials at the Brussels market that about one-fifth of the receipts on that market come from commercial feeders of pigs.

There seems to be no standard ration generally used in hog feeding. Farmers on the small and medium-sized holdings maintain their breeding hogs and fatten pigs on such feeds as are produced on the farm, supplementing the latter with purchased meals when conditions permit. Barley, the most widely used grain, together with unmarketable potatoes, roots, inferior-quality bread grains, and other domestically produced feeds, supplies most of the hog feed requirements on the small and medium-sized farms. The small unit of production permits kitchen garbage to furnish an appreciable part of the protein requirements. Commercial feeders use more grain (mostly imported) than farmer feeders, barley, corn, and skin milk being the basic feeds.

With the trend toward meat-type hogs, slaughter weights have declined. Whereas hogs were formerly marketed at weights around 150 kilograms (331 pounds), 110 kilograms (243 pounds) seems the most desirable weight at present. This reduction has, of course, reduced the feed requirement per pound of gain, and Belgian agriculturists estimate that at present a hog-feed price ratio of about 5.5:1 will permit feeders of 243-pound hogs to break even. Belgian hog and feed price data are meager and not entirely satisfactory for calculating a hog-feed price ratio that will serve as a guide to profit and loss in hog production.

It has been indicated that Belgian hogs are fed largely on waste materials, at least up to a few weeks prior to marketing. Under such conditions, the usual computations of hog-feed price ratios have less significance than they do in countries where the feeds utilized throughout have a measurable market value. Belgian commercial feeders, however, frequently finish hogs on barley. Using the lowest average price of hogs at Brussels for 1920-1935, together with available data on average barley prices for the same period, it can be shown that the hog-barley price ratio in Belgium has been favorable for most of the time since 1928. Inferior grades of potatoes also constitute an important item in feeding. Taken in connection with annual hog figures, it appears that numbers are somewhat responsive to the hog-feed ratios. There is reason to believe, however, that considerations other than the ratios are also important factors influencing hog numbers.

Marketing

The marketing system in Belgium has changed very little over a long period of years. The small unit of production has not justified or permitted producers in general to take an active part in marketing, nor has the demand for pork given sufficient incentive for the production of uniform or high-quality products. Farmers, particularly the operators of small and medium-sized units, are dependent on merchants or traders, who buy at farms or at small village markets and fairs, for an outlet for their surplus production.

Under Belgian conditions the merchants appear to be performing a worthwhile service by assuming marketing risks that the small farmers are both unable and unwilling to assume themselves and by bringing domestic pork supplies to the markets where they are needed. Under existing conditions, it seems doubtful whether these services could be rendered at a smaller cost by other means. Despite opportunities which exist for merchants to pay hog producers less than they should receive, it is stated in Belgium that, in general, merchants give farmers a fair deal when buying hogs. It is customary for farmers not to feed hogs after noon on the day preceding their sale and, in addition, two kilograms (4.4 pounds) are deducted from their shrunk weight when they are sold. This shrinkage, plus the strong fill which the merchant gives hogs on arrival at the market, permits him to pay the farmer a per-kilogram price equal to, or almost equal to, the published market price. When hogs are sold on a per-head basis or weighed on questionable scales, opportunities for fraudulent practices increase, but in general it is felt that merchants treat farmers fairly.

The operations of the traders or merchants have expanded until this group has become the most important factor in the marketing and distribution of hogs. Merchants, in addition to buying direct from farmers and at country markets on commission for butchers or for themselves, are almost entirely responsible for the movement of hogs from surplus to deficit markets. In certain cases they finance the purchase of feeder pigs and advance money for feeds, taking payment when the finished hogs are sold. Some have expanded operations to the point where they do a wholesale butcher business, and at least one of the leading merchants has developed retail shops.

There are five important livestock markets in Belgium: Brussels, Ghent, Antwerp, Liege, and Charleroi. One day a week at each market is devoted to hog sales. The yards, equipment, and abattoirs are owned by the municipalities, and a fee on a per-head basis is charged for their use. Receipts at these markets are drawn from surrounding areas, from one another, and from the small country markets. Most shipments to the large markets are made by merchants, but the increase in commercial feeding operations has been accompanied by an increase in marketings by feeders themselves, especially at the Brussels market. The movement of hogs from and country markets to the city markets is largely by truck, Brussels being the only large center equipped with facilities for receiving shipments by rail.

Most sales are made by the merchants directly to butchers. Co-operative livestock marketing has not been developed in Belgium, but in 1936 attempts were being made in the vicinity of Ghent to establish a cooperative among producers in that locality. Commission men are found only at the Brussels market. That market is the largest and most important, receives the best-quality hogs, and, though prices there average higher than those at other markets, price movements at Brussels are taken as a guide for the rest of the country.

Marketing and slaughter data are meager and do not accurately reflect the hog supply situation. Annual killings at the principal slaughterhouses has increased as hog production has expanded. During the years for which data are available, this slaughter has approximated 15 percent of the estimated slaughter for the entire country. In the period from 1920 through 1929, average monthly marketings at Brussels showed a seasonal decline from the first of the year to July, after which a seasonal increase occurred. Data relating to operations at the principal slaughterhouses for the years 1930-1935 indicate that, with the shift toward lower slaughter weights, the seasonal increase in marketings comes earlier in the year, beginning in April and continuing to October.

Slaughter

Slaughter at municipal abattoirs is not compulsory and only a small part of total slaughter is conducted there. At Brussels approximately one-third of the receipts are killed in the adjoining abattoir, and the reported number at the principal slaughterhouses, which includes municipal abattoirs, accounts for perhaps a fourth of the estimated commercial slaughter.

The bulk of slaughter is conducted by butchers on their own premises. Belgian law requires veterinary inspection for all meat sold for human consumption, but it is doubtful whether this regulation is rigidly enforced. There is no pre-mortem inspection at Brussels. Post-mortem inspection is conducted in the abattoir, but there is no laboratory for microscopic and bacteriologic examination of the glands of suspected animals.

Marketing expenses in Belgium are low. Yardage, which amounts to Frs. 3.50 (11.8 cents) per head, and weighing, Frs. 1.00 (3.4 cents) per head, are the only charges incidental to the actual marketing. When hogs are slaughtered at the municipal abattoir (Brussels), there are charges of Frs. 10.00 (33.7 cents) per head for inspection and use of the killing facilities, Fr. 1.00 (3.4 cents) per head for hot water, and a transmission tax of Frs. 22.50 (75.9 cents) per head for hogs weighing over 90 kilograms (198 pounds) and Frs. 12.50 (42.2 cents) per head for hogs weighing under 90 kilograms. Under this system of charges the per-kilogram cost of marketing and slaughtering declines with an increase in hog weights and is reported to have somewhat retarded the trend toward meat-hog production.

It is usually customary for butcher buyers who have their slaughtering done at the abattoir to employ slaughtermen, who kill and dress the hog, pay the aforementioned charges, and deliver the carcass to the buyers' premises for a total of Frs. 55.00 (\$1.85) per head. Refrigeration is available at Brussels at a charge of Frs. 4.00 (13.5 cents) per carcass; and, when meat is offered in the wholesale market connected with the abattoir, additional charges are made.

Processing

Processing beyond killing and dressing is conducted at the butcher's own shop. The Belgian butcher cuts hog carcasses in a manner more nearly comparable with the American method than that employed in other European countries. They are divided into pork loins, shoulders, hams, and bacon sides. Pork loins and bacon sides, the majority of the latter being of a thick, fat, "sow-belly" type, enter the fresh pork trade although some of the bacon is cured. Hams and shoulders are mostly cured, some plants specializing in this process, and Belgian cured hams are reported to have an excellent flavor. Butchers and the few small plants that are in operation also make numerous varieties of sausage. Little attempt is made to carry storage stocks for any length of time, and in general uncured meats are moved into consumption channels as rapidly as they become available.

Lard production for 1935 was estimated at about 25,353,000 pounds, which, assuming 1935 hog production to be about equal to 1933 production, would mean a lard yield of about 7 percent to 8 percent of the dressed carcass weight. This relatively low yield, despite the fact that the bulk of receipts is made up of fat hogs, is not surprising because pork is generally sold as fat pork and little trimming is done except on excessively fat loins. Because of the small unit of processing, lard made from domestic fats is not uniform and lard production does not play an important part in the butcher business.

Pork Requirements

Consumption

Despite the relatively low standard of living of a large proportion of the Belgian people, per-capita consumption of meat ranks favorably with that of other countries. In recent years, as beef production declined and pork production increased, pork has become the most important meat in the diet of the Belgian people. Per-capita pork consumption is greatest in the rural sections; and, though the farm population represents only one-fourth of the people, it is estimated that they consume one-third of the country's supply of pork. Beef is seldom eaten on the farms. Since the war the urban population in Belgium has, as elsewhere, shown a marked preference for lean meat, but the rural population continues to use thick, fat pork. Lard is used primarily as a cooking fat, but in rural sections and among laboring classes it is sometimes used as a spread.

Belgian hog numbers have not attained pre-war levels, but the increased efficiency that has come with smaller slaughter weights and quicker turnover permits domestic production to supply the greater part of the increased pork consumption. Indeed, Belgium approaches self-sufficiency in pork production, and during the period 1924-1928, when per-capita consumption of pork was considerably lower than at present, Belgium had an excess of hogs and pork for export.

Domestic pork supplies were estimated to average approximately 342,000,000 pounds annually during the years 1930-1933 whereas average annual imports of pork for the same period, which, incidentally, were years of large imports, were only about 31,000,000 pounds. Hog numbers according to the December 1933 census amounted to 1,352,000. Domestic slaughter the following year was estimated at 1,939,171 hogs and 44,990 pigs with a total estimated pork production of 393,000,000 pounds.

Per-capita beef consumption declined from 41 pounds in 1933 to 38 pounds in 1934, and per-capita pork consumption increased from 43 pounds in 1933 to about 48 pounds in 1934. Furthermore, increased production changed Belgium from a pork-importing country (net imports of pork in 1933 amounting to 27,274,000 pounds) to an exporting country (net exports of pork in 1934 totaling 150,000 pounds). Since 1924 Belgium has been a net exporter of live pigs in every year except 1925 and 1929. Live pig exports, however, are of minor importance.

Imports

Belgium's pork imports at present chiefly take the form of fresh carcasses, with the Netherlands, Poland, and Denmark as the principal suppliers. A marked decrease has occurred in recent years in imports of frozen pork from the United States and South American countries, and Belgium is obtaining imported pork supplies chiefly from those European surplus hog-producing countries with which there are trade agreements.

In former years the United States supplied Belgium with fair quantities of picnics and a few hams, but this trade also has undergone a decline. Advancing prices in the United States have made it difficult for American pork products to compete on Belgian markets with the products of European countries, especially those which are subsidized. In the trade agreement with the United States, Belgium gave the United States an annual import quota of 2,362,000 pounds of "pork other than salted" (the average annual imports for consumption from the United States during the years 1929-1933). The quota, however, has not been utilized fully, largely because of the relatively high prices prevailing in the United States.

Imports of pork into Belgium are permitted under a system of quotas, tariffs, and import license fees. Attempts are made to regulate imports in such a way that price changes do not work a hardship on either Belgian consumers or producers. Provision has been made to determine when imports from Poland are to be permitted; a clause in the Belgian-Polish trade agreement provides that, if the Brussels price for hogs averages over Frs. 5.50 per kilogram (8.4 cents per pound) live weight for 3 successive months, imports will be admitted, but, if the price averages below that amount for 3 months, imports from Poland will be excluded. Since this arrangement takes no account of changes in feed costs, another basis for imports is being sought.

Imports from trade agreement countries other than the United States are determined by monthly quotas, which are fixed by the Belgian authorities, but the information available to those who fix quotas is so limited that regulating the volume of imports does not appear to have a scientific basis.

Fat Deficiency

While Belgium is almost self-sufficient in pork production, it is a deficit fat country and imports appreciable quantities of lard and raw materials for margarine production. Formerly it was necessary also to import large quantities of butter, but under the protective policy adopted in the early 1930's domestic butter production has increased. At present Belgium is practically self-sufficient as to butter, importing only about 2,200,000 pounds in 1935 compared with an import of about 44,000,000 pounds 4 or 5 years ago. Lard imports come principally from the Netherlands and the United States. Only in 1933 and 1934, when American lard stocks were at high levels, did imports from the United States exceed those from the Netherlands.

The United States was given an annual import quota of 7,070,000 pounds of lard (the average annual imports for the period 1929-1933) by the terms of the trade agreement with Belgium. Lard has been the principal pork product exported to Belgium since the trade agreement became effective, but the price situation has prevented complete fulfillment of the quota. Importers have experienced no difficulty in obtaining import permits (import license fee Fr. 0.50 per kilogram, or 0.76 cent per pound) but they find it practically impossible to move the lard in competition with Netherlands and domestic products. In November 1936 Netherlands and domestic lard was wholesaling at about Frs. 7.00 per kilogram (24 cents per pound) compared with about Frs. 10.00 (34 cents) for American refined. Imports of lard from countries other than the United States are also limited by quotas, which are fixed each month. The Netherlands, in accordance with a trade agreement with Belgium, receives an allocation of 30 percent of the total quota, but there seems to be no special or scientific basis for determining the quota.

Lard sales in Belgium are further handicapped by the increasing production and consumption of margarine and the low prices that obtain for the latter. Most of the margarine consumed is produced in Belgian factories from raw materials imported almost exclusively from the Belgian Congo. Tariffs and import fees do not apply to raw materials for margarine production, but since May 29, 1936, manufacturers have had to pay an excise tax of Frs. 25.00 per 100 kilograms (0.38 cent per pound) on margarine. Consumption of margarine increased from 57,291,000 pounds in 1923 to an estimated 121,253,000 pounds in 1936 and practically equals production. Per-capita consumption in the same period increased from 7.52 pounds to an estimated 12.10 pounds.

Margarine retails in Belgium at from 6 to 8 Francs per kilogram (20-27 cents per pound) compared with 20 to 22 Francs per kilogram (67-74 cents per pound) for domestic butter, and the marked increase in estimated consumption for 1936 as compared with consumption in 1935 at 100,435,000 pounds, is causing apprehension among butter interests. A movement is under way, and seems to be growing, to increase the tax on margarine or provide new forms of taxation in order to reduce its competitive advantage over butter. Industry, however, needs and demands low food costs; the raw materials come from a Belgian colony, are financed by Belgian capital, and processed by Belgian labor, and the success of the movement for higher taxes is in doubt.

Conclusions and Outlook

In any discussion of probable developments in the Belgian hog industry and trade in pork products, it must be recognized that they will be dependent on economic development, not only in Belgium but in Europe as a whole. Being an industrial and exporting country, Belgium is particularly vulnerable to happenings outside her own borders. The economic situation in Belgium improved after the currency was devalued in early 1935, and a further and more marked improvement is reported to have occurred in 1936. The Belgian economic position, however, continues fundamentally uncertain in view of the generally unsettled European political situation.

From a strictly production point of view, the limits of expansion in Belgian hog numbers appear to have been approximately reached, and further or marked expansion does not appear likely or advisable. At present, Belgian hog numbers seem to have as their greatest limiting factor the quantity of feed produced on the small farms where most of the breeding hogs are kept. An appreciable increase in hog numbers would likely come only with an increase in sow holdings on the larger farms or by commercial plants. The country is already on an imported-feed basis, particularly for fattening feeds; and rising world prices for feed grains, together with the limitations that Government policy places on advances in hog prices, appear to preclude any expansion in the immediate future. Over a long period hog production could expand; but, in view of the present high level of agricultural production in Belgium, the expansion would likely be at the expense of a curtailment in the production of other products or come with increased feed imports which except in years of bumper world crops would lessen the competitive advantage of domestic pork products.

From the standpoint of an outlet for pork products, further or marked expansion in hog production does not appear to be in the best interests of the national economy, although certain domestic interests are urging increased production for export. True, Belgium is importing pork, but, in return for those imports, secures a needed export outlet for industrial goods. An increase in hog numbers that would bring

production approximately to 1933 levels would necessitate either a further increase in domestic pork consumption, which could come only with decreased beef consumption or a marked increase in wages, or an export outlet for pork products. Such increased consumption appears improbable, and export outlets would be limited largely to those countries that secure their fats under barter or clearing agreements. Belgium, under the trade agreement with Germany, exports a small quantity of fat pork and since the balance of trade is usually in Germany's favor this outlet could be expanded. In view of Belgium's dependence on imported feeds, however, it is doubtful whether Belgium could, even by barter trade, meet the competition of the leading hog-producing countries sufficiently to permit the trade to become an important factor.

The hog industry in Belgium is ripe for an increase in pork production. This development need not necessarily involve an increase in hog numbers, but could be brought about through more efficient production methods and improvements in marketing. It is felt in Belgium, however, that further incentive for improvement along these lines must come also from the consumer, and propaganda that may be adopted for that purpose can be expected, under Belgian conditions, to take effect only slowly. Agricultural research work along all lines, particularly economic and statistical, has been neglected, and the Government has recently or will soon establish departments for such purposes. The hog industry stands to gain from this work also, but the effect of it probably will not be felt for years.

Assuming that Belgian hog production will continue along present lines with improvements in production, marketing, and the quality of products coming slowly, a marked expansion or contraction in numbers does not appear likely. It is probable that the country will continue to produce most of its own pork requirements, export minor quantities to Germany, and during the next few years import, largely from surplus countries in Europe, needed pork products in the form of carcasses and the cheaper grades of lard.

Belgium is a market where demand for quality products is limited. As such, it has not been an important outlet for American pork products except during periods when American supplies were excessive and prices were low or during the post-war years when European hog herds were being replenished. Imports from the United States have been mostly in the form of fat-backs, picnics, and lard. At present American prices are high and American products must compete in Belgian markets with subsidized pork from European countries, low quality fats, and margarine. It is likely that competition from subsidized pork will decline but there remains, as in other European markets, the growing competition from artificial fats. Under such conditions future outlets for American pork products in Belgium do not appear favorable.

- - - - -